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October 29, 1998

HAND DELIVERED
Magalie R. Salas, Esquire
Secretary
Federal Communications Commission
1919 M Street, NW, Room 222
Washington, D.C. 20554

Re: CC Docket No. 98-163
Modifications to Signal Power Limitations
Contained in Part 68 of the Commission's Rules

Dear Ms. Salas:

Enclosed are the original and eight copies of the Comments of the 3Com Corporation for filing in the above-referenced docket.

Kindly date-stamp and return the extra copy of this cover letter.

If there are any questions about this filing, please call me at the number above.

Respectfully submitted,

Mitchell Lazarus
Counsel for 3Com Corporation

ML:deb

Enclosures

cc: Service List

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Before the
Federal Communications Commission
Washington DC 20554

In the Matter of	)	
	)	
1998 Biennial Regulatory Review —	)	CC Docket No. 98-163
Modifications of Signal Power Limitations	)	
Contained in Part 68 of the Commission's	)	
Rules	)	

COMMENTS OF
3COM CORPORATION

3Com Corporation (3Com) hereby submits these comments in response to the Notice of Proposed Rulemaking in the above-captioned proceeding.[1]

3Com is a major manufacturer of modems, under the brand name U.S. Robotics. It supports the Commission's proposal for the reasons given below.

The Proposed Rule Change Will Benefit Consumers by Setting Power Levels that Permit the Network to Support the Full V.90 Range of Modem Speeds.

In the 30 years since the Commission first permitted a competitive market in telephone terminal equipment, subscribers have been offered an ever-increasing variety of products at ever-lower prices.[2] Modems for the conventional local loop are no exception. From handset cradles

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[1] Modifications of Signal Power Limitations Contained in Part 68 of the Commission's Rules, CC Docket No. 98-163, Notice of Proposed Rulemaking, FCC 98-221 (released Sept. 16, 1998).

[2] The Commission struck down tariffs that restricted the connection of "foreign attachments" in Use of the Carterfone Device in Message Toll Telephone Service, 13 F.C.C.2d 420 (1968). Seven years later, it instituted the Part 68 program to regulate the technical characteristic of terminal devices. Proposals for New or Revised Classes of Interstate and Foreign Message Toll Telephone Service (MTS) and Wide Area Telephone Service (WATS), 56 F.C.C.2d 593 (1975).

capable of operating at only a few hundred bits per second in the 1970s, manufacturers have progressed today to V.90 modems capable of operating at 56 kilobits/second. At the same time, costs for modems have come down dramatically, just as they have for other categories of computer products. Even overlooking inflation, today's V.90 modem costs far less than a 100 baud handset cradle of 25 years ago.

The current demand for higher-speed modems comes largely from users of the Internet. Although many Internet technologies vie for the Commission's attention — cable, DSL, fiber-to-the-curb, MMDS/ITFS, Part 15 transmitters, satellites, etc. — the overwhelming majority of users still access the Internet through ordinary modems connected to ordinary telephone local loops. These users are entitled to the fastest possible service the network can support.

As shown in the attached Technical Appendix, a signal power limit of -6 dBm will permit PCM modems to reach 56 kilobits/second over good-quality telephone lines. This will allow the network to support the full V.90 range of modem speeds, and so will be of direct benefit to the public.

For these reasons, 3Com urges the Commission to adopt its proposal.

Respectfully submitted,

Frank R. Jazzo
Mitchell Lazarus
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1300 North 17th Street, 11th Floor
Arlington, VA 22209
703-812-0400

October 29, 1998

Counsel for 3Com Corporation

Technical Appendix

3COM CORPORATION

We have collected laboratory test data on our modems to better quantify the benefits of the proposed rule change. Although many network parameters affect V.90 modem speed, in these tests we introduced only two:

1) One robbed-bit in all cases. This represents a good US connection.

2) Variable loop length, a major loop parameter that affects speed.

We produced the following chart, which addresses the question, "What is the potential benefit to 3Com V.90 data users for the proposed new signal level."

K feet 26awg	K feet 24awg	Final Speed: -12 dBm Rule (presently)	Potential Final Speed: -6dBm Rule
0	0	53.33K	56K
3	0	53.33k	56K
6	0	53.33K	54.67K
9	0	53.33K	54.67K
12K	0	50.66K	53.33K
15K	0	50.67K	53.33K
15K	3	50.67K	53.33K
15K	6K	50.67K	53.33K
15K	9K	49.33K	53.33K
15K	12K	V.34	53.33K

Note 1. TAS 240 simulated lines

Note 2. Digital network impairments: 1 RBS

Note 3. The listed potential final speeds are determined based on the assumption that 3Com will make available revised code for its modems. However, even without any changes in existing code for 3Com modems, final speeds would increase with the proposed rule change.

Note 4. Data speeds are line signaling speeds as used in V.90. "Final speeds" were measured approximately 30 seconds after call origination. 3Com modems use speed switching defined in V.90. So, "final speed" may, in some cases, differ from modem "connect speed" immediately after the connection.

Certificate of Service

I, Mitchell Lazarus, an attorney with the law firm of Fletcher, Heald & Hildreth, P.L.C., hereby certify that on this 29th day of October, 1998, I caused copies of the foregoing "Comments Of 3Com Corporation" to be delivered by hand to the following:

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Chairman
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